

In the Claims

Please amend the Claims as set forth below:

1. (currently amended) A video imaging system, comprising:
a camera head for generating image data;
a camera control unit; [and]
a light source mounted within the camera control unit;
a cable, for connecting said camera head to said camera control unit, said cable including [in] a single protective jacket enclosing:
at least one channel for transmitting information between said camera head and said camera control unit, and
a light [source] guide for transmitting light from the light source to an object, wherein said camera head is receptive of light reflected from the object [for use in] thereby generating the image data.
2. (original) The video imaging system according to Claim 1 wherein said at least one channel comprises two electrical conductors.
3. (original) The video imaging system according to Claim 1 wherein said cable comprises two channels.
4. (original) The video imaging system according to Claim 1 wherein said cable comprises four channels.

5. (original) The video imaging system according to Claim 4 wherein said four channels comprise eight electrical conductors.

6. (currently amended) The video imaging system according to Claim 1 wherein said camera control unit generates a command[s] signal for [operation of] operating said camera head, and wherein said at least one channel transmits the command[s] signal from said camera control unit to said camera head.

7. (currently amended) The video imaging system according to Claim 1 wherein [each of said at least one channel transmits] the information includes a control signal in the nature of camera operating information. [in a single direction between said camera head and said camera control unit.]

8. (currently amended) The video imaging system according to Claim [1] 7 wherein said at least one channel transmits [at least two types of information] the control signal and the image data. [in a single direction.]

9. (currently amended) The video imaging system according to Claim [1] 8 wherein [said at least one channel transmits at least two types of information, and wherein the two types of information] the control signal and the image data are multiplexed.

10. (currently amended) The video imaging system according to Claim [9] 7 wherein the [two types of information include] image data and the control [data] signal are generated by said camera head.

11. (currently amended) The video imaging system according to Claim 9 wherein the [multiplexed information is] control signal and the image data are de-multiplexed in the camera control unit.

12. (currently amended) The video imaging system according to Claim 1 wherein said camera head generates a control [data] signal, and wherein said at least one channel [of said cable] transmits the control [data] signal from said camera head to said camera control unit.

13. (cancelled).

14. (cancelled).

15. (currently amended) The video imaging system according to Claim [13] 1 wherein [the] light output from said light source is [connected] directed to said light [source] guide [of said cable].

16. (currently amended) The video imaging system according to Claim [13] 1 wherein [an] light output of said light source is [connected] directed to said camera control unit.

17. (original) The video imaging system according to Claim 16 wherein said cable is detachably connectable to said camera control unit by a connector, and wherein the light output of said light source passes through said camera control unit to the connector.

18. (currently amended) The video imaging system according to Claim 17 wherein said camera control unit further comprises a sleeve [to facilitate the] for guiding of the light output of said light source to the connector.

19. (currently amended) The video imaging system according to Claim 1 wherein said cable is wired to said camera head.

20. (currently amended) The video imaging system according to Claim [13] 1 further comprising an endoscope, [and] wherein said camera head receives light from said light [source] guide and transmits [it] the light to said endoscope.

21. (currently amended) The video imaging system according to Claim [20] 1 wherein the light is transmitted through said camera head.

22. (currently amended) The video imaging system according to Claim 20 wherein the light is transmitted from said camera head to said endoscope through an intermediate coupling mounted to said camera head and a cable for [connection between] connecting said intermediate coupling and said endoscope.

23. (currently amended) The video imaging system according to Claim 13 wherein the camera control unit further comprises a light deflector, mounted along a path between the [light output of said] light source and the light [source] guide, to sever the path [once] whenever the cable is disconnected from the camera control unit.

24. (currently amended) The video imaging system according to Claim [1] 7 wherein at least the [at least one channel] control signal and the image data are transmitted [utilizes] utilizing a digital serial protocol.

25. (currently amended) The video imaging system according to Claim 24 wherein the digital serial protocol is Low-Voltage Differential ~~Signals~~ Signaling.

26. (currently amended) A video imaging system, comprising:
a camera head for generating image data; ~~and~~
a light source mounted within a camera control unit; and
a cable ~~for transmitting the image data, said cable~~ including ~~in~~ a single protective jacket enclosing:
at least one electrical channel for transmitting the image data and a control signal in the nature of camera operating information from said camera head to ~~a~~ the camera control unit, and
a light ~~source~~ guide for transmitting light from the light source to an object, wherein said camera is receptive of light reflected from the object ~~head for use in~~ thereby generating the image data.

27. (original) The video imaging system according to Claim 26 wherein said at least one channel comprises two electrical conductors.

28. (original) The video imaging system according to Claim 26 wherein said cable comprises two channels.

29. (original) The video imaging system according to Claim 26 wherein said cable comprises four channels.

30. (original) The video imaging system according to Claim 29 wherein said four channels comprise eight electrical conductors.

31. (currently amended) The video imaging system according to Claim 26 wherein said at least one electrical channel transmits [at least two types of information] the image data and the control signal in a single direction.

32. (currently amended) The video imaging system according to Claim 26 wherein [said at least one channel transmits at least two types of information, and wherein the two types of information] the image data and the control signal are multiplexed.

33. (cancelled).

34. (currently amended) The video imaging system according to Claim 26 wherein said cable is wired to said camera head.

35. (currently amended) The video imaging system according to Claim 26 further comprising an endoscope, [and] wherein said camera head receives light from said light [source] guide and transmits [it] the light to said endoscope.

36. (currently amended) The video imaging system according to Claim [35] 26 wherein the light is transmitted through said camera head.

37. (currently amended) The video imaging system according to Claim 35 wherein the light is transmitted from said camera head to said endoscope through an intermediate coupling mounted to said camera head and a cable [for connection between] connecting said intermediate coupling and said endoscope.

38. (currently amended) The video imaging system according to Claim 26 wherein at least the [at least one channel] image data and the control signal are transmitted [utilizes] utilizing a digital serial protocol.

39. (currently amended) The video imaging system according to Claim 38 wherein the digital serial protocol is Low-Voltage Differential [Signals] Signaling.

40. (cancelled).

46. (new) A video imaging system comprising:
a camera including an imager for receiving photonic energy from an object;
a control unit receptive of a control signal from the camera, the control unit generating a command signal for controlling the camera;
at least one channel for bi-directionally transmitting the command and control signals between the camera and the control unit;
a light source mounted within the control unit for generating the photonic energy;
a light guide for transmitting the photonic energy to the object; and
a jacket enclosing the at least one channel and the light guide.

47. (new) The video imaging system as set forth in Claim 46 further comprising an endoscope coupled to the camera.

48. (new) The video imaging system as set forth in Claim 46 wherein the bi-directional signals are transmitted utilizing a digital serial protocol.

49. (new) The video imaging system according to Claim 48 wherein the digital serial protocol is Low-Voltage Differential Signaling.

50. (new) The video imaging system as set forth in Claim 46 wherein the imager generates image data from the photonic energy.

51. (new) The video imaging system as set forth in Claim 50 wherein the control unit is receptive of the image data.

52. (new) The video imaging system as set forth in Claim 46 wherein the control signal is in the nature of camera operating information.

53. (new) The video imaging system as set forth in Claim 46 wherein the control signal is in the nature of software programs, timing signal data, camera identification information or camera use information.

54. (new) The video imaging system as set forth in Claim 7 wherein the information is in the nature of software programs, timing signal data, camera identification information or camera use information.

55. (new) The video imaging system as set forth in Claim 26 wherein the control signal is in the nature of software programs, timing signal data, camera identification information or camera use information.

56. (new) A video imaging system comprising:
a camera for generating image data;
a control unit for controlling the camera;

a channel for transmitting information between the camera and the control unit, wherein the information comprises at least a control signal in the nature of camera operating information; and

a light guide for transmitting light from a light source mounted within the control unit to an object, wherein the camera is receptive of light reflected from the object thereby generating the image data.

57. (new) The video imaging system as set forth in Claim 56 wherein the control signal is multiplexed with the image data on the channel.

58. (new) The video imaging system as set forth in Claim 56 further comprising a jacket enclosing the channel and the light guide.

59. (new) The video imaging system as set forth in Claim 56 wherein the control signal comprises a signal in the nature of software programs, camera operating information, a timing signal, camera identification information or camera use information.

60. (new) A cable for transmitting a signal between a camera and a control unit for controlling the camera, the cable comprising:

a channel for transmitting information between the camera and the control unit, wherein the information comprises at least a control signal in the nature of camera operating information;

a light guide for transmitting light from a light source mounted within the control unit to an object, wherein the camera is receptive of light reflected from the object; and
a jacket enclosing the channel and the light guide.

61 (new) The cable as set forth in Claim 60 wherein the at least one channel comprises two electrical conductors.

62. (new) The cable as set forth in Claim 60 wherein the at least one channel comprise four electrical conductors.

63. (new) The cable as set forth in Claim 60 wherein the camera generates image data from the light reflected from the object.

64. (new) The cable as set forth in Claim 60 wherein the control signal and the image data are multiplexed on the at least one channel.

65. (new) The video imaging system as set forth in Claim 1 wherein the at least one channel is an electrical channel.

66. (new) The video imaging system as set forth in Claim 1 wherein the information comprises a control signal in the nature of camera operating information and the image data.

67. (new) A video imaging system comprising:
a camera for generating image data;
a control unit for controlling the camera;
a channel for transmitting information between the camera and the control unit,
wherein the information comprises at least a control signal in the nature of camera operating information; and

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Serial No. 10/034,271

Response to Official Action

a light guide for transmitting light through the control unit from a light source to an object, wherein the camera is receptive of light reflected from the object thereby generating the image data.

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